



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/777,382 | 02/11/2004 | Santiago Rodriguez | 200311748-1 | 4602 |

22879 7590 06/21/2005

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

BRASE, SANDRA L

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2852

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/777,382

Applicant(s)

RODRIGUEZ, SANTIAGO

Examiner

Sandra L. Brase

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-26 and 33-36 is/are allowed.
- 6) ☒ Claim(s) 1,3-10 and 27-32 is/are rejected.
- 7) ☒ Claim(s) 2 and 11-22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/11/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 280 (see page 8, line 9) and 365 (see page 11, line 12). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "360" has been used to designate both I/O interface and engagement detection procedure (see figure 3). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the

Art Unit: 2852

applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities.

Appropriate correction is required.

On page 4, line 31, "135" should be changed to "130".

On page 5, line 16, "140" should be changed to "135".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3-7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinohara et al. (US 6,381,435).
6. Shinohara et al. (...435) disclose a method of detecting rotation of at least one printer component comprising: forming at least one pattern on a marking material receiving part (abstract; col. 3, lines 58-62; col. 7, lines 13-37; and col. 10, lines 61-64); moving the marking material receiving part past a sensor configured to detect the presence of the pattern (figure 2); sensing the marking material receiving part with the sensor; and selectively operating a printing

Art Unit: 2852

system in response to a positive detection of the pattern (col. 8, line 44 – col. 9, line 41); sensing the marking material receiving part with the sensor (col. 3, lines 54-58; and col. 8, lines 27-43); and selectively operating a printing system in response to a positive detection of the pattern (col. 8, line 44 – col. 9, line 41). The pattern comprises a line (figures 9 and 10). The marking material receiving part is a transfer belt (3) (col. 7, lines 17-32; and figures 9 and 10) or a paper media sheet (2) (col. 1, lines 30-35; and col. 7, lines 32-37). The sensor is configured to perform a color plane registration operation (col. 8, line 54 – col. 9, line 25). The component is a rotating printer cartridge component (8K, 8C, 8M and 8Y) (figure 2).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara et al. (US 6,381,435) in view of Sasaki (US 5,499,092).

9. Shinohara et al. (...435) disclose the features mentioned previously, but do not disclose specifically that the sensing is performed during a start-up of the printing system. Sasaki (...092) discloses sensing position marks during startup of a printing system (col. 3, lines 46-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to have

Art Unit: 2852

the sensing performed during a start-up of the printing system, as disclosed by Sasaki (...092), so as to obtain data for imaging control before an initial image forming operation is performed.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara et al. (US 6,381,435) in view of Takeuchi et al. (US 5,715,498).

11. Shinohara et al. (...435) disclose the features mentioned previously, and disclose the rotating printer component is a photoconductor (8K, 8C, 8M and 8Y), but do not specifically disclose the photoconductor is an organic photoconductor. Takeuchi et al. (...498) disclose an organic photoconductor (OPC) used in an image forming apparatus (col. 7, lines 38-39 and 64-65; and col. 8, lines 7-8 and 17-18). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the photoconductor be an organic photoconductor, as disclosed by Takeuchi (...498), since the use of such is notoriously well known in the art for image formation.

12. Claims 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara et al. (US 6,381,435) in view of Takeuchi et al. (US 5,715,498) and Sasaki (US 5,499,092).

13. Shinohara et al. (...435) disclose a printing system comprising: a plurality of print cartridges (1K, 1C, 1M and 1Y), each of the print cartridges having a developer and a photoconductor (8K, 8C, 8M and 8Y); a print cartridge configured to form a rotation detection and an alignment mark on a marking material receiving part (abstract; col. 3, lines 58-62; col. 7, lines 13-37; and col. 10, lines 61-64); a sensor configured to sense the rotation detection and alignment marks (col. 3, lines 54-58; and col. 8, lines 27-43); and a controller (34) configured to

Art Unit: 2852

control a rotation detection process and a color sub-image alignment process (col. 8, line 44 – col. 9, line 41). The plurality of print cartridges comprise a cyan ink filled print cartridge, a magenta ink filled print cartridge, a yellow ink filled print cartridge, and a black ink filled print cartridge (figure 2; and col. 1, lines 4-18). The marking material receiving part can comprise an intermediate transfer belt (col. 7, lines 32-37; and col. 11, lines 48-56), or an electronic transfer belt (col. 7, lines 17-32; and figures 9 and 10). The sensor comprises an optical sensor (col. 3, lines 54-58; and col. 8, lines 29-35) and a density sensor (col. 8, lines 29-35). However Shinohara et al. (...435) do not disclose the photoconductor is organic, and do not disclose specifically that the sensing is performed during a start-up of the printing system. Takeuchi et al. (...498) disclose an organic photoconductor (OPC) used in an image forming apparatus (col. 7, lines 38-39 and 64-65; and col. 8, lines 7-8 and 17-18). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the photoconductor be an organic photoconductor, as disclosed by Takeuchi (...498), since the use of such is notoriously well known in the art for image formation. Sasaki (...092) discloses sensing position marks during startup of a printing system (col. 3, lines 46-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the sensing performed during a start-up of the printing system, as disclosed by Sasaki (...092), so as to obtain data for imaging control before an initial image forming operation is performed.

Allowable Subject Matter

14. Claims 2 and 11-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. Claims 23-26 and 33-36 are allowed.

Prior Art

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Takamatsu et al. (US 5,550,625), Shimada et al. (US 6,285,849), Tanaka et al. (US 6,408,157), Dreher et al. (US 6,619,209), Shinohara (US 6,693,654), Yamanaka et al. (US 6,714,224) and Yamanaka et al. (US 6,829,465) disclose an image forming device including forming and sensing a mark.

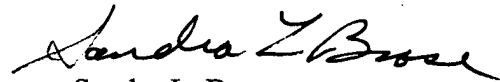
Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra L. Brase whose telephone number is (571) 272-2131. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley, can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2852

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Sandra L. Brase".

Sandra L. Brase
Primary Examiner
Art Unit 2852

June 16, 2005